

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 1-23 are pending in the application.

I. Rejection under 35 U.S.C. § 102

In the Office Action, at page 2, numbered paragraph 2, claims 1, 2, 7, 9, 10, 15 and 17-23 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 6,341,104 to Yamaguchi et al. This rejection is respectfully traversed because Yamaguchi does not discuss or suggest:

a plurality of suspensions coupled at one end to the blade and fixed at another end to a holder, provided at one side of a base, such that the suspensions movably support the blade;

first and second coil members installed on the base, separated from each other; and

a magnet member installed on the blade between the first and second coil members,

as recited in independent claims 1 and 9.

Further, Yamaguchi does not discuss or suggest:

driving a coil system, separated from the blade, such that an interaction with a magnet on the blade controls the moving of the blade in the tracking and/or focusing directions,

as recited in independent claim 17.

As a non-limiting example, the present invention as set forth in claim 1, for example, is directed to an optical pickup actuator including a blade with an objective lens, suspensions, first and second coil members and a magnet member. The suspensions are coupled at one end to the blade and fixed at another end to a holder provided at one side of a base. The suspensions movably support the blade. The first and second coil members are installed on the base and are separated from each other. The magnet member is installed on the blade between the first and second coil members.

Yamaguchi discusses an optical pickup apparatus that allows for tilt control of an objective lens. Yamaguchi discusses an objective lens holding cylinder 40 supported by two elastic tilt members 47 and mounted to a suspension holder 50 through junction substrate members 48 and four wires 49. The cylinder 40 has a space portion and an opening portion rigidly provided with coils. At four divided sections or corners of the opening portion in Yamaguchi are first through fourth focus coils 41-44 wound on a plane parallel to the disk

surface. Yamaguchi further discusses that first and second tracking coils 45 and 46 are installed in a gap between the first 41 and third 43 focus coils and the second 42 and fourth focus coils 44, respectively, that are wound on a plane perpendicular to the disk surface. The suspension holder 50 of Yamaguchi is secured with a yoke base 52 to a carriage 9. The yoke base 52 has four projecting yoke poles 53 that are each attached with a magnet 54. The yoke poles 53 attached with the magnets 54 are each inserted into central space portions of the first through fourth focus coils 41-44 and held immovable.

First, Yamaguchi does not discuss or suggest that the wires 49 are coupled at one end to the blade and fixed at another end to a holder provided at one side of a base. Yamaguchi discusses wires 49 that are coupled at one end to junction substrate members 48 and at the other end to the suspension holder 50 that is attached with the yoke base 52 to the carriage 9. Yamaguchi does not suggest that the wires are coupled at an end of the wires 49 to the objective lens holding cylinder 40. The wires 49 are attached to the substrate members 48 at one end. While the junction substrate members 48 are secured to elastic tilt members 47 that are secured to the objective lens holding cylinder 40, the wires 49 are not coupled at an end directly to the objective lens holding cylinder 40.

Further, Yamaguchi does not discuss or suggest that the wires are coupled at the other end to a holder provided at one side of a base. The wires 49 are attached, at the other end, to the suspension holder 50. The suspension holder 50 is not provided at one side of a base, even assuming, *arguendo*, that the base is considered to be yoke base 52. The suspension holder 50, to which the wires 49 are attached, is not provided specifically at one side of the yoke base 52.

In addition, while Yamaguchi discusses focus coils 41-44, tracking coils 45 and 46 and magnets that are attached to yoke poles 53, which are inserted into space portions of the focus coils 41-44, Yamaguchi does not discuss or suggest that the actuator includes first and second coil members installed on the base, separated from each other, and a magnet member installed on the blade between the first and second coil members. The focus coils 41-44 of Yamaguchi, which the Examiner alleges correspond to the first coil members, and the tracking coils 45, 46, which the Examiner alleges correspond to the second coil members, are separated from each other, but Yamaguchi does not suggest that that first and second coil members are installed on the base. Yamaguchi discusses that the focus coils 41-44 and tracking coils 45, 46 are provided in the opening portion of the cylinder 40, with the tracking coils 45, 46 installed in a gap between the first 41 and third 43 focus coils and the second 42 and fourth 44 focus coils, respectively. Yamaguchi does not suggest that the focus coils 41-44 are installed on the base or that the tracking coils 45, 46 are installed on the base.

Additionally, Yamaguchi does not discuss or suggest that the magnets 54 are installed on the blade between the first and second coil members. Yamaguchi specifically discusses that the magnets 54 are attached to the yoke poles 53 that are affixed to the yoke base 52, but does not discuss or suggest that the magnets 54 are installed on the objective lens holding cylinder 40. Further, the magnets 54 are attached to the yoke poles 53 inserted into space portions of the focus coils 41-44. The magnets 54 are not installed on the holding cylinder 40 between the first 41-44 and second 45, 46 coil members, where the Examiner has alleged that focus coils 41-44 correspond to the first coil members and tracking coils 45, 46 correspond to the second coil members. The magnets 54 in Yamaguchi are installed in the space between the individual focus coils 41-44. The magnets 54 are not installed between the focus coils 41-44 and the tracking coils 45, 46. The magnets 54 are merely inserted in the central space openings within each of the focus coils 41-44.

Yamaguchi also does not suggest driving a coil system, separated from the blade, such that an interaction with a magnet on the blade controls the moving of the blade in the tracking and/or focusing directions. In Yamaguchi, the focus coils 41-44 are installed on the objective lens holding cylinder 40 and the tracking coils 45, 46 are installed on the objective lens holding cylinder 40. Neither coils 41-44 nor coils 45, 46 are separated from the holding cylinder 40, which the Examiner alleges corresponds to the blade, and that coils separated from the holding cylinder 40 are driven such that an interaction with any of the magnets 54 on the holding cylinder 40 controls the moving of the cylinder 40 in the tracking and/or focusing directions.

Therefore, as Yamaguchi does not discuss or suggest “a plurality of suspensions coupled at one end to the blade and fixed at another end to a holder, provided at one side of a base, such that the suspensions movably support the blade; first and second coil members installed on the base, separated from each other; and a magnet member installed on the blade between the first and second coil members,” as recited in independent claims 1 and 9, and does not discuss or suggest “driving a coil system, separated from the blade, such that an interaction with a magnet on the blade controls the moving of the blade in the tracking and/or focusing directions,” as recited in independent claim 14, claims 1, 9 and 14 patentably distinguish over the reference relied upon. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

Claims 2, 7, 10, 15 and 18-23 depend either directly or indirectly from claims 1, 9 and 17 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 21 recites that “the coil system drives the blade in an additional radial tilting direction.” Therefore, claims 2, 7,

10, 15 and 18-23 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

II. Rejections under 35 U.S.C. § 103

In the Office Action, at page 6, numbered paragraph 3, claims 3, 5, 8, 11, 13 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaguchi in view of U.S. Patent Pub. No. 2003/198148 to Choi. This rejection is respectfully traversed.

As discussed above with respect to independent claims 1 and 9, Yamaguchi does not discuss or suggest all the features of independent claims 1 and 9. Choi fails to make up for the deficiencies in Yamaguchi. Specifically, while Choi discusses an optical pick-up actuator including coils 205 that are focusing/tilting coils allowing for movement in the tilting direction, Choi does not discuss or suggest that first and second coil members are installed on a base, separated from each other and that a magnet member is installed on the blade between the first and second coil members. Therefore, as the combination of Yamaguchi and Choi does not suggest all the features of independent claims 1 and 9, claims 1 and 9 patentably distinguish over the references relied upon.

Claims 3, 5, 8, 11, 13 and 16 depend either directly or indirectly from claims 1 and 9 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 16 recites that "the first and second coil members are Fine Pattern Coils (FPCs)." Therefore, claims 3, 5, 8, 11, 13 and 16 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

In the Office Action, at page 8, numbered paragraph 4, claims 4, 6, 12 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaguchi in view of U.S. Patent Pub. No. 2004/130976 to Tanaka. This rejection is respectfully traversed.

As discussed above with respect to independent claims 1 and 9, Yamaguchi does not discuss or suggest all the features of independent claims 1 and 9. Tanaka fails to make up for the deficiencies in Yamaguchi. Specifically, while Tanaka discusses an optical pickup unit that includes radial tilt coils 22, Tanaka does not discuss or suggest that first and second coil members are installed on a base, separated from each other, and that a magnet member is installed on the blade between the first and second coil members. Therefore, as the combination of Yamaguchi and Tanaka does not suggest all the features of independent claims 1 and 9, claims 1 and 9 patentably distinguish over the references relied upon.

Claims 4, 6, 12 and 14 depend either directly or indirectly from claims 1 and 9 and include all the features of their respective independent claims, plus additional features that are

not discussed or suggested by the reference relied upon. For example, claim 4 recites that "the pair of tilt driving coil members are installed under the one coil member used as the focusing coil member." Specifically, the Examiner even concedes that Tanaka does not discuss tilt coil members installed under the one coil member used as the focusing coil member. Therefore, claims 4, 6, 12 and 14 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Conclusion

In accordance with the foregoing, claims 1-23 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

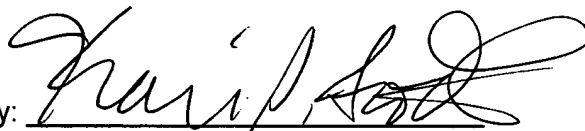
Respectfully submitted,

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